## CLAIMS

1.      (Currently Amended): A method to control caching of the URL information included in a response, the method comprising the steps of:

determining URL information that should be invalidated, including URL information for one or more URLs;

indicating in the response which of one or more cache proxies is to cache the URL information;

indicating in the response the conditions under which the URL information should be invalidated; and

transmitting the response to the one or more cache proxies of the URL information.


2.      (Original): The method of Claim 1, wherein the response includes a URL comprising a significant portion identifier that specifies the portion of the URL that is to be used as a key for the URL information.


3-4.      (Cancelled)


5.      (Currently Amended): A method of managing a cache of a response having a URL, URL information associated with the URL, and a header, the method comprising the steps of:

determining URL information that should be invalidated, including URL information for one or more URLs;

identifying a cache proxy as serving a cache manager of the URL; and

indicating in the header whether the URL information is to be cached, is not to be cached, <u>or</u>

is to be cached by the cache proxy serving the cache manager<u>; and</u> ~~, or is to be invalidated by the~~

~~one or more cache proxies.~~

<u>indicating in the header URL information to be invalidated.</u>

6.      (Original): The method of Claim 5, wherein the URL is a partial URL, wherein the

partial URL comprises a significant portion identifier that specifies the portion of the URL that is to

be used as a key.

7.      (Currently Amended): A method to control caching of URL information associated

with one or more URLs of a response, the method comprising the steps of:

<u>determining whether the response is an update request, wherein in response to an update</u>

<u>request determining URL information that should be invalidated, including URL information for the</u>

<u>one or more URLs;</u>

identifying a cache proxy as serving a cache manager for one or more URLs;

receiving by a first cache proxy the response comprising a header and the one or more

URLs, the header comprising an indication of whether the URL information is to be cached,

invalidated, or only cached by the cache proxy serving the cache manager;

in response to receiving a header comprising an indication that the URL information is to be

cached, storing the URL information in the cache;

in response to receiving a header comprising an indication that the URL information is to be

cached only by the cache proxy serving the cache manager, determining whether the first cache

proxy is the cache proxy serving the cache manager;

in response to determining the first cache proxy is the cache proxy serving the cache manager, storing the URL information in the cache;

in response to determining the first cache proxy is not the cache proxy serving the cache manager, sending the response to the cache proxy serving the cache manager; ~~and~~

in response to an update request, updating the URL information indicated in the response; and

in response to receiving a header comprising an indication that the URL information is to be invalidated, preventing the use of the URL information in cache in response to a second request.

8.      (Original): The method of Claim 7, wherein the one or more URLs comprise one or more partial URLs, and wherein the one or more partial URLs comprises a significant portion identifier identifying the portion of the one or more URLs that is to be used as a key.

9-10.   (Cancelled)

11.     (Currently Amended): A method to control caching of URL information associated to one or more URLs of a response, the method comprising the steps of:

determining URL information that should be invalidated, including URL information for one or more URLs;

receiving the response comprising a header, the one or more URLs, and the URL information, the header having an indication of whether the URL information is to be invalidated; and

in response to receiving a header having an indication that the one or more URLs are to be invalidated, preventing the use of the cached URL information in response to a second request.

12.     (Original): The method of Claim 11, wherein the one or more URLs comprise one or more partial URLs, and wherein the one or more partial URLs comprises a significant portion identifier identifying the portion of the one or more URLs that is to be used as a key.

13.     (Currently Amended): An apparatus adapted to control caching of the URL information included in a response, the apparatus comprising:

means for determining URL information that should be invalidated, including URL information for one or more URLs;

means for indicating in the response which of one or more cache proxies is to cache the URL information;

means for indicating in the response the conditions under which the URL information should be invalidated; and

means for transmitting the response to the one or more cache proxies.

14.     (Original): The apparatus of Claim 13, wherein the response includes a URL comprising a significant portion identifier that specifies the portion of the URL that is to be used as a key for the URL information.

15-16.  (Cancelled)

17. (Currently Amended): An apparatus adapted to manage a cache of a response having a URL, URL information associated with the URL, and a header, the apparatus comprising:

means for determining URL information that should be invalidated, including URL information for one or more URLs;

means for identifying a cache proxy as serving a cache manager for the URL; ~~and~~

means for indicating in the header whether the URL information is to be cached, is not to be cached, is to be cached by the cache proxy serving the cache manager; and ~~, or is to be invalidated by the cache proxy.~~

means for indicating in the header URL information to be invalidated.

18. (Original): The apparatus of Claim 17, wherein the URL is a partial URL, wherein the partial URL comprises a significant portion identifier that specifies the portion of the URL that is to be used as a key.

19. (Currently Amended): An apparatus adapted to control caching of URL information associated with one or more URLs of a response, the apparatus comprising:

means for determining whether the response is an update request, wherein in response to an update request determining URL information that should be invalidated, including URL information for the one or more URLs;

means for identifying a cache proxy as serving a cache manager for the one or more URLs;

means for receiving by a first cache proxy the response comprising a header and the one or more URLs, the header having an indication of whether the URL information is to be cached, invalidated, or cached by the cache proxy serving the cache manager;

in response to receiving a header comprising an indication that the URL information is to be

cached, means for storing the URL information in the cache;

in response to receiving a header comprising an indication that the URL information is to be

cached by the cache proxy serving the cache manager, means for determining whether the first

cache proxy is the cache proxy serving the cache manager;

in response to determining the first cache proxy is the cache proxy serving the cache

manager, means for storing the URL information in the cache;

in response to determining the first cache proxy is not the cache proxy serving the cache

manager, means for sending the response to the cache proxy serving the cache manager; ~~and~~

<u>in response to an update request, means for updating the URL information indicated in the</u>

<u>response; and</u>

in response to receiving a header comprising an indication that the URL information is to be

invalidated, means for preventing the use of the URL information in cache in response to a second

request.


20.     (Original): The apparatus of Claim 19, wherein the one or more URLs comprise one

or more partial URLs, and wherein the one or more partial URLs comprises a significant portion

identifier identifying the portion of the one or more URLs that is to be used as a key.


21-22. (Cancelled)


23.     (Currently Amended): An apparatus adapted to control caching of URL information

associated to one or more URLs of a response, the apparatus comprising:

means for determining URL information that should be invalidated, including URL

information for one or more URLs;

means for receiving the response comprising a header, the one or more URLs, and the URL

information, the header comprising an indication of whether the URL information is to be

invalidated; and

in response to receiving a header comprising an indication that the one or more URLs are to

be invalidated, means for preventing the use of the cached URL information in response to a second

request.


24.     (Original): The apparatus of Claim 23, wherein the one or more URLs comprise one

or more partial URLs, and wherein the one or more partial URLs comprises a significant portion

identifier identifying the portion of the one or more URLs that is to be used as a key.